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CHART



#### MILITARY TRAFFIC MANAGEMENT COMMAND

Remarks by

MAJ GEN HAROLD I. SMALL

at

AUSA Winter Defense Symposium

27 Feb 86



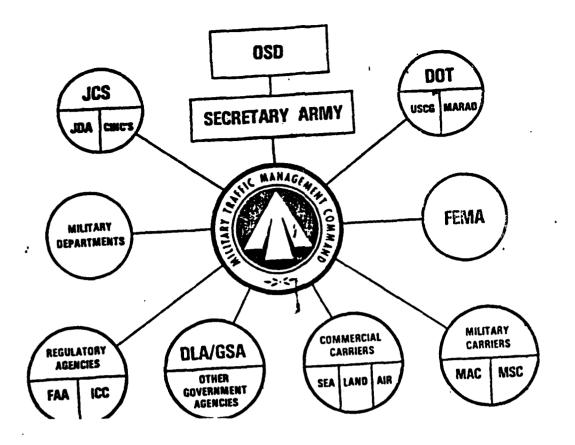
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#### ENSURING COMBAT POWER GETS TO ITS PLACE OF BUSINESS

- As the Defense Department's Traffic Manager, ensuring combat power gets to its place of business is our mission, and our goal.
- -- The ability of our nation to project force depends heavily upon the execution of MTMC's wartime mission to move units and supplies from origin to their air and seaports of embarkation.
- This central role makes MTMC the first leg of strategic mobility.

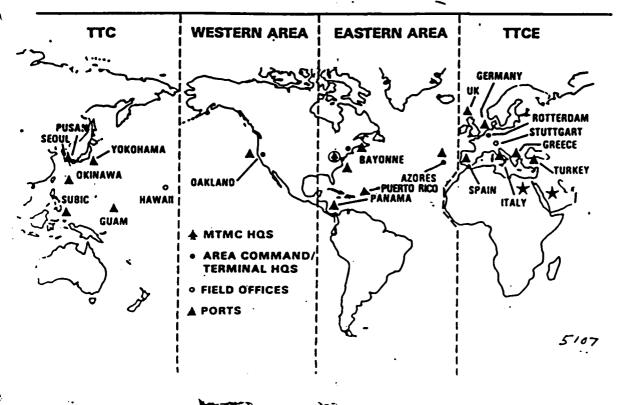


#### OSD/SECRETARY ARMY

- We interface with a number of agencies.
  - -- the principle ones are shown here
- -- involvement ranges from emergency transportation planning to routine operations to joint exercises.

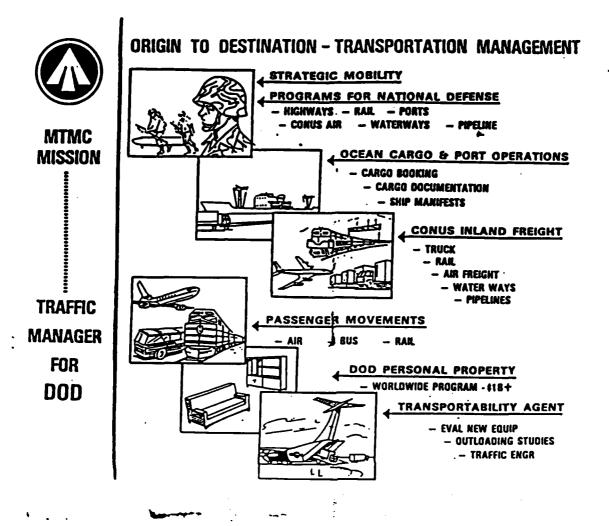
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# MTMC MILITARY TRAFFIC MANAGEMENT COMMAND



#### MTMC

- MTMC's mission is global in scope. It includes our two CONUS area commands which provide freight traffic management for DOD shippers and management of our CONUS military ocean terminals and outports.
- We have field offices co-located with CINCPAC and CINCEUR which work personal property and provide wartime liaison.
- Our overseas commands are also portrayed here. I will show more detail on subsequent vugraphs.



#### ORIGIN TO DESTINATION - TRANSPORTATION MANAGEMENT

- The command is broken down functionally on this chart.
- We support 1 1/2 million freight shipments per year. We have established criteria of 10,000 lbs by surface and 1,000 lbs by air. Shipments below these amounts are managed by the shipper. Above these quantities we use guaranteed traffic, special negotiated contracts, or other traffic management techniques to provide quality low cost service.
- Because of our criteria, we provide routing instructions for only 20% of all shipments but that small number equates to 97% of the tonnage and 75% of the dollars. The money we save, we call cost avoidance, and it equalled \$119 million in FY 85.
- Using the Contract Air program and passenger Standing Route Orders we moved 6 million passengers in FY 85 and saved \$122.5 million.
- Through competitive contracting for labor and terminal services we saved \$10 million in terminal handling cost in FY 85.
- Our personal property moves included over 800 thousand household goods shipments and 100 thousand privately owned vehicles.
- We saved \$42 million.

#### TRANSPORTATION ENGINEERING

- DESIGN ACQUISITION INPUTS
- PERFORM TRANSPORTABILITY
   TESTING & CERTIFICATION
- DEVELOP USER PROCEDURES

20.

#### TRANSPORTATION ENGINEERING

- It is important for you to know that the transportation of a unit to the war begins with the design of that unit's equipment and the imbedded transportability considerations.
- MTMC makes inputs to the design of a new weapons system, does engineering testing to determine how to transport it safely and prepares transportability guidance technical manuals to tell the user how to transport it.

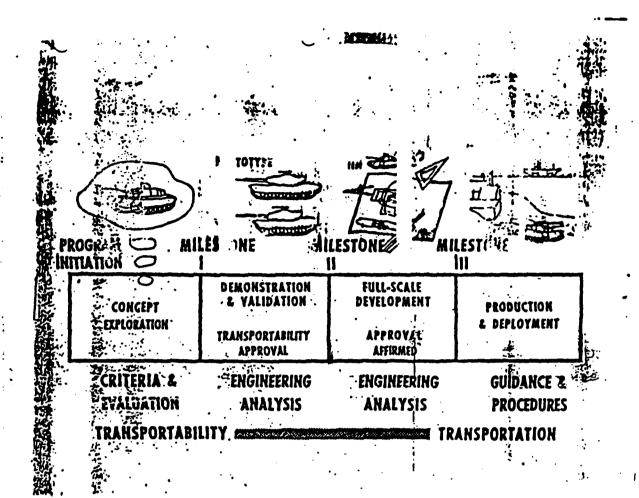
#### **DIVISION HEAVY-UP**

- PARADOX: BIGGER VS TRANSPORTABILITY
  - ALL OUT EFFORT: INCREASE AWARENESS
- ARMY
  - CDR MTMC VOTES IN ASARC
    - INPUT AT ALL MILESTONES
  - APPROVES ALL ARMY EQUIPMENT
- DOD
  - PROPONENT FOR DOD/JOINT REG's
  - INPUT TO OTHER SERVICES

21.

#### DIVISION

- In the context of that basic responsibility, we have become increasingly concerned that bigger, heavier equipment assigned to fight increasingly high tech warfare is becoming less transportable.
- Our emphasis has been on raising awareness as to Transportability Factors.
  - -- In the case of the army, our input is through the ASARC.
  - -- We also work with the other services as you know.



# TRANSPORTABILITY ACTIONS IN THE RESEACH AND DEVELOPMENT ACQUISITION CYCLE

- You can see the value of making transportability inputs early-on instead of at milestone III where its really too late to have an impact.

#### MTMC INSTALLATION OUTLOADING CAPABILITY (IOC) STUDIES

#### IOC STUDIES

- EVALUATE OUTLOADING CAPABILITY VS REQUIREMENTS
- ADDRESS
  - FACILITIES
  - EQUIPMENT
  - MATERIEL
  - PROCEDURES
- RECOMMEND IMPROVEMENTS REQUIRED

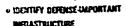
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#### MTMC INSTALLATION OUTLOADING CAPABILITY (COR) STUDIES

- Another of our important responsibilities in mobility is to assess each installation's capabilities to meet their wartime outload requirements.
- Our teams go to DOD installations and conduct outloading studies. These studies address facilities, equipment, material, and procedures...

#### PROGRAMS FOR NATIONAL DEFENSE







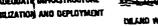


PORTS

· CONVEY DEFENSE NEEDS TO COMMERCIAL AND CIVIL SECTORS



. RETAIN ADEQUATE INFRASTRUCTURE FOR MOBILIZATION AND DEPLOYMENT









RAIL ROADS

25-27

#### PROGRAMS FOR NATIONAL DEFENSE

- The other facet of our engineering effort is worked by my assistant for Transportation Engineering.
- The six programs for National Defense provide for identifying defense needs, and insuring that we act responsively to retain or upgrade the infrastructure to support defense needs.
- We nave identified 42,000 miles of interstate and another 12,000 miles of non-<u>inters</u>tate highway which are critical to Defense needs. Our inputs on priorities influence which unfinished segments of the system receive the funding.
- We have worked the Emergency Highway Traffic Regulation with the Federal Highway Administration and the convoy issue with FORSCOM.
- Our engineers provide traffic flow recommendations to installation commanders.
- Through our defense access roads program we certify defense needs for road upgrade and thereby release defense dollars which reduce the financial burden on the states.
- We have proven the value of roadmarching tracked vehicles such as from Fort steward to the port of Savannah.
- Within a reasonable distance, roadmarch saves rail cars and the time for positioning and loading. We now have a National Policy (American Association State Highway and Transportation Officials) supporting roadmarch.
- As changes have occurred in the rail industry, defense support has been jeopardized.
- We have participated in over 1100 adverse actions and have retained essential service to defense installations in all cases.

#### THE FIRST LEG OF STRATEGIC MOBILITY

Thus far I have told you how we manage traffic in peace time and some of the mobility related engineering functions.

Now, I would like to zero in on contingency planning and exection.

SUSTAIN THEM IN THEATER

This chart shows you where we fit in the Strategic Mobility Chain.

# CINC'S REQUIREMENTS VS COMMERCIAL CAPABILITY

30.

#### CINC'S REQUIREMENTS VS COMMERCIAL CAPABILITY

- The question which invariably comes up in any discussion of a major deployment is shown here.
- I would like to show you how we look at requirements and how they compare with commercial assets.

### MOVEMENT REQUIREMENT/ASSET COMPARISON

* OPLAN X	REQUIRED	ASSETS
TRUCK	82,442	2,729,400 (3%)
RAIL	<b>59,31</b> 0	450,298 (13%)
BUS	<b>6,739</b>	23,500 (29%)

\*FIRST 90 DAYS

32.

#### MOVEMENT REQUIREMENT/ASSET COMPARISON

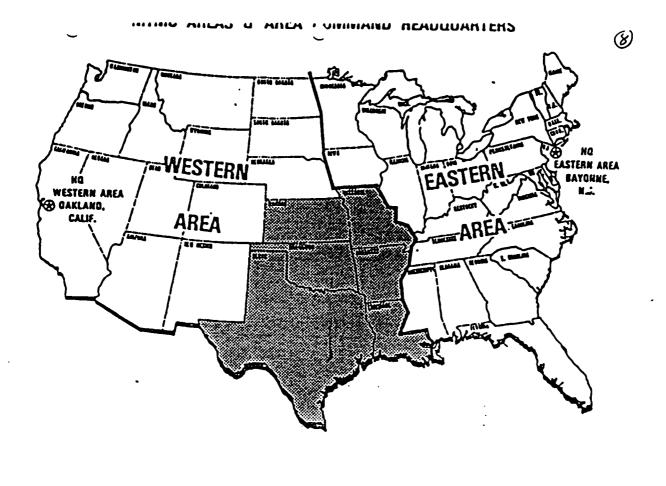
- We convert requirements to specific numbers of trucks, trains, and busses needed to Support Operations Plans and compare those to the commercial for-hire assets.
- A major Operation Plan is shown here for the first 90 days. As you can see, gross assets appear to be adequate.

# CAN WE GET ASSETS "WHERE AND WHEN NEEDED"

33.

#### CAN WE GET ASSETS WHERE AND WHEN NEEDED

- The next question then is can we place those assets in the right places at the right time.
- Let me show you some parts to the answer.



#### MTMC AREAS TO AREA COMMAND HEADQUARTERS

- Our Area Commands work with the shippers to satisfy individual requirements.
- To maximize that interface, we redrew the boundaries between our two area commands in Oct 1984. This gives us a more balanced wartime workload between the two.

#### **CONTINGENCY RESPONSE**

MISSION: PROVIDE COMMERCIAL TRANSPORTATION ASSETS IN THE RIGHT QUANTITIES AND TYPES TO MEET DEFENSE TRANSPORTATION NEEDS.

#### **TOOLS: CONTINGENCY RESPONSE PROGRAM (CORE)**

- 1. SHIPPER REQUESTS SUPPORT FROM AREA CMD, AREA CMD IDENTIFIES CARRIER; CARRIER MEETS REQUIREMENT.
- 2. INDUSTRY ASSOCIATIONS AND REGULATORY
  AGENCIES (CORE TEAM) COOPERATE TO VOLUNTARILY
  RESOLVE REQUIREMENTS UNFILLED BY LOCAL CARRIERS.
- 3. CDR MTMC REQUESTS DOT TO DIRECT REGULATORY
  AGENCIES TO DIRECT CARRIERS TO PROVIDE PRIORITY
  TO DOD SHIPPERS OR IN CASE OF LONG TERM USE,
  ALLOCATION OF EQUIPMENT, SERVICES, OR FACILITIES.
  BACKED BY THE DEFENSE PRODUCTION ACT—1950,
  AND IMPLEMENTED BY FEDERAL REGULATIONS.

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35.

#### CONTINGENCY RESPONSE

When there are projected or actual shortages of regional transportation assets, our contingency response team is used to help fill the void.

Finally, we have legal authority to request and obtain what we need using the process as shown.

140 TON-420

NOTE: BY FYEE 140 TON CARS WILL REPLACE THE

THEIR 40 YEAR LIFE

100 TON CARS WHICH WILL HAVE REACHED

#### 100/140 TON DODX FLATCAR POOL ASSIGNMENTS

- Another answer to the question is shown here. Prepositioned Flatcars, under DOD control, support the movement of early deploying units.
- \* (For your INFO, 65 cars are prepo at Ft Steward which you previously cited as within roadmarch distance and Ft Lewis to Tacoma [11 miles]. Reason is for training including moves to Ft Irvin and for use if units deploy to atternate ports i.e. quit or opposite ocean.)
- \* FOR GEN SMALL'S INFO ONLY.

DELIVERED DURING 1ST QTR FY BE

SI CARS TO BE DELIVERED DURING 1ST QTR FY 86.

• • 70 CARS HAVE BEEN DELIVERED.

#### **CONTINGENCY STANDING ROUTE ORDERS**

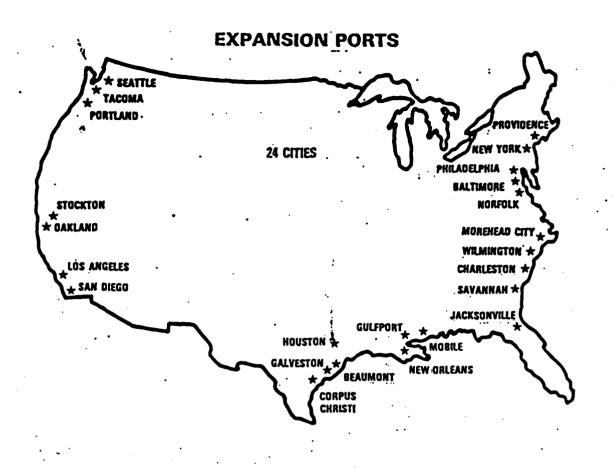
- PRESELECTION OF COMMERCIAL TRANSPORTATION CARRIERS FOR MOVEMENT OF EARLY MOBILIZING UNITS FROM HOME STATIONS/STORAGE SITES TO MOBILIZATION STATIONS.
- JOINT PROCESS BETWEEN MTMC AND SUPPORTING INSTALLATION ITO'L.
  - · SELECTION OF CARRIERS (HIGHWAY, RAIL)
  - . COORDINATION OF MOVEMENT DETAILS
- ADVANTAGES
  - CARRIER LISTING AND MOVEMENT REQUIREMENTS IN HANDS OF ITO'S
     AND CARRIERS
  - REDUCES COMMUNICATION REQUIREMENTS -
  - TIME SAVINGS
  - FACILITATE ASSET DISTRIBUTION
- IMPLEMENTATION
  - DRAFT REGULATION
  - FEASIBILITY ANALYSIS WITH 47 INF DIV (NG)
  - FORSCOM SELECTION OF UNITS FOR CSRO's

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38.

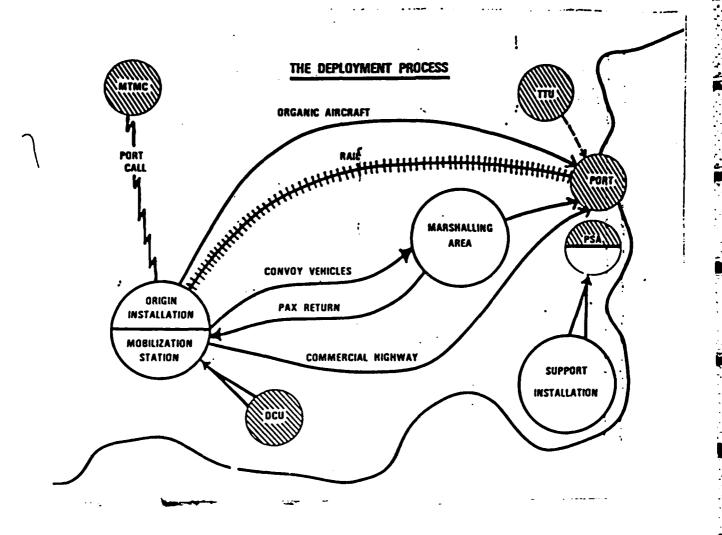
#### CONTINGENCY STANDING ROUTE ORDERS

- We have another initiative underway to produce standing Route Orders for reserve units.
- Since their home-to-Mob Stations are fixed, they are prime candidates for SROs which will speed the process when they need to move.



#### **EXPANSION PORTS**

- An important aspect of our ability to execute is the ready access to seaport facilities. We know, from the planning process, that in a major deployment our military ocean terminals must be augmented by facilities in commercial ports.
- We have worked out the procedures to support orderly expansion with the maritime adminstration and the port authorities involved. We have pre-identified the ports shown here and 58 berths of different types in these ports to support our various plans.



#### THE DEPLOYMENT PROCESS

- This vu-graph illustrates the relationship between the deploying unit, MTMC, and the commercial ports just discussed.
- We issue the port call from our area commands, and use our Deployment Control Units to assist the shipper in preparation for movement.

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- At the port, we obtain the labor, arrange for security and facilities, plan the ship stow, document the cargo, and supervise vessel loading.
- Port Support Activity (drivers, mechanics, etc) is provided by a designated army installation and we have worked out the details with US FORSCOM.

#### PREASSIGNED CONUS PORTS FOR MAJOR ARMY UNITS

- Once we established the means by which we obtain facilities in commercial ports and man them, it was a logical next step to preassign these ports to specific deploying units...

#### PORT OPERATIONS DURING DEPLOYMENT

#### PLANNING AND COORDINATION

- RESPONSIBILITIES DEFINED BY MTMC/FORSCOM MOU DEPLOYING UNITS MARSHALLING AREA TERMINAL UNITS STAGING AREA - SUPPORTING INSTALLATIONS
- PORT SUPPORT ACTIVITIES ESTABLISHED OPCON TO TERMINAL COMMANDER PROVIDES LOGISTICS SUPPORT
- . RRIFFINGS CONDUCTED AT SPOE's - ALL PARTICIPANTS "WALK-THE-GROUND" INITIAL BRIEFING CYCLE COMPLETED OCT 1983

• PARTICIPANTS:

- MTMC

DEPLOYMENT CONTROL

UNITS

FORSCOM

- SUPPORTING

- CONUS ARMIES

**INSTALLATIONS** 

- DEPLOYING UNITS

· US COAST GUARO

- CORPS OF ENGINEERS

**TRANSPORTATION** -TERMINAL UNITS

46.

#### PORT OPERATIONS DURING DEPLOYMENT

- This vu-graph summarizes what has been done with the preassigned port program.
- Responsibilities are clearly defined as I've previously stated.
- Port Coordination briefings were conducted in the 1982-83 period involving the deploying unit and the other participants shown here. This forum has been a major training and problem solving effort.

# TERMINAL SYSTEM MODERNIZATION

48.

#### TERMINAL SYSTEM DOCUMENTATION

- The last area I would address is the <u>ability</u> of our <u>seaports</u> to <u>thru-put cargo</u> in a <u>major force deployment</u>.
- With the advert of the fast sealift ship (FSS) and inprovements in MSC's ready reserve force it becomes critical that not only can we get the cargo to the ports in a timely manner, but that we can get the cargo through the ports and the ships loaded in equally as efficient manner.
- We are working on modernizing our cargo documentation systems as one very important means of adding speed and efficienty to the process.

- WE NEED A SYSTEM THAT WORKS WELL IN WAR TIME
  - SIMPLE TO USE
  - FAST AND ACCURATE
  - INTERFACE WELL/STAND ALONE

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50.

#### PAPERLESS MOVES

- The bottom line is that we want to eliminate the slow, labor intensive TCMD process and speed up the documentation and movement of cargo through the terminal.

We have used the term "PAPERLESS MOVES" to characterize our need for . system that is easy to use, fast and mobile, interfaces with our other deployment systems, but is capable of stand-alone operations when

## LOGISTICAL APPLICATIONS OF AUTOMATED MARKING AND READING SYMBOLS (LOGMARS)

"SUPERMARKET CHECKOUT COUNTER TECHNOLOGY"

51.

#### LOGMARS

- I want to review just two parts of this "PAPERLESS MOVE" system that are now becoming a reality.
- -- We are now using "LOGMARS" -- To replace the manual TCMD process of moving unit equipment through the port.
- -- It works just like the checkout counter at our local supermarkets.

#### BARCODED LABEL



WA2UAAD0100807XXX

MODEL NO M548

CARRIER CARGO TRACK

DIMENSION 00232 100W077H

WEIGHT 16145

CUBE 1031 26 M/T

COMMODITY CODE 864

TYPE PACK CODE: VE

52.

#### BARCODED LABEL

- Except that instead of groceries, our unit equipment is affixed with supermarket type labels
- -- Which are read by a hand-held reader when the cargo moves into the ports or is loaded on board ship.
- -- The information in the hand-held reader is then uploaded to one of our stand-alone microcomputers.
- -- The micro then automatically accomplishes cargo accounting, generation of vessel papers, produce required reports,
- --- And, finally, links back to the mainframe computers for permanent storage and any other required manupulation of the data.



#### **LOGMARS**

- SUCCESSFULLY TESTED IN REFORGER 84 AND 85
- ADOPTED FOR UNIT MOVES COMMENCING WITH REFORGER 86
- TEST ON GENERAL CARGO SPRING OF 86
- IMPLEMENT FOR GENERAL CARGO BY OCT 86
- BENEFITS
  - OPERATES IN ESSENTIALLY PAPERLESS ENVIRONMENT
  - INCREASES PRODUCTIVITY OF CARGO SYSTEM
  - SIMPLIFIES MOBILIZATION EXPANSION AND TRAINING
  - FACILITATES OTHER CARGO SYSTEM ENHANCEMENTS

53.

#### LOGMARS

- This concept is now in use for all unit moves, most recently in the deployment of REFORGER 86.
- We will test LOGMARS on general cargo this spring.
- And hope to have it fully implemented by October of this year.



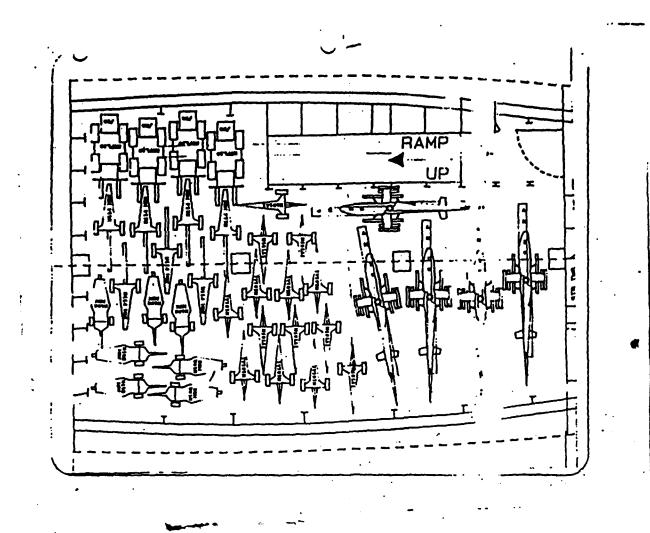
#### AUTOMATED STOW PLANNING

- CURRENT MANUAL SYSTEM NOT SUITABLEFOR MASSIVE SHIPPING
- MUST ENSURE OPTIMIZED USE OF SEALIFT ASSETS
- . NEED SYSTEM TO MATCH
  - DIMENSIONAL VESSEL CHARACTERISTICS FILE
  - MATCH AGAINST CARGO OFFERED AND
    - - PRODUCE PRE-STOW PLAN
    - - CALCULATE CRITICAL LOADING INFORMATION
- CODES DEVELOPMENT
  - PRELIMINARY CONCEPT ANALYSIS OCT 84
  - SYSTEM DEVELOPMENT/EQUIPMENT ACQUISITION FY 85/86
  - SYSTEM FIELDING ... FY 87 ....

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#### AUTOMATED STOW PLANNING (CODES)

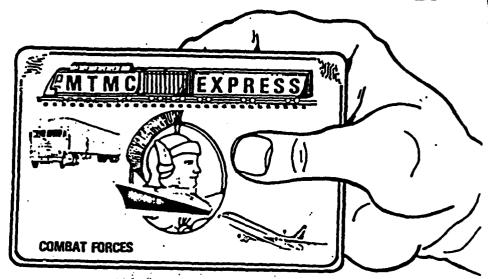
- Another aspect of the "PAPERLESS DEPLOYMENT" that we are equally excited about is automated ship stow planning.
  - -- Acronym (CODES) for computerzied deployment system
- Currently, all ships stow planning is done manually using a drawing of the ships compartments and little cardboard cutouts of pieces of equipment.
- -- A stow planner literally by hand positions the cutouts on the drawings to determine proper ship loading.
- This manual procedure can take in excess of 24 hours to accomplish and is not responsive to last-minute changes.
- We have tested, and, in fact, used at Baltimore during REFORGER 86, A Micro based automatic stow planning system that matches vessel characteristics against cargo and automatically produce a stow plan to include critical loading movements for the particular ship being loaded.



### PIC OF CODES STOW PLAN

- This vu-graph is an actual computer generated stow plan for a ship's compartment.
- -- This type of stow plan for an entire ship can be produced in approximately 2 hours vs the 24 or more hours to prepare manually.
- -- The same fast capability enables the system to accept and make very rapid changes if the equipment arrives in a configuration different from that expected.

## STRATEGIC PLANNING? MOBILIZING?



# YOU CAN'T LEAVE HOME WITHOUT US!!

INIV

57.

#### STRATEGIC PLANNING ? MOBILIZING?

- I believe the bottom line is this.
- -- When the deploying commander asks "do you know me? I'm going to war, can you get me there?"
  - -- The answer from MTMC is a resounding YES!
    - --- We know who and where you are and where you are going
- --- We have the procedures, facilities, and forces in place to get you there
- -- That's what I meant on my first vu-graph about ensuring combat power gets to its place of business.

6-86